

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM  
STATEMENT OF INVESTMENT POLICY**

**FOR  
DOLLAR-DENOMINATED FIXED INCOME  
LIMITED-DURATION**

**February 14, 2006**

*This Policy is effective immediately upon adoption and supersedes all previous dollar-denominated fixed income short-duration policies.*

**I. PURPOSE**

This document sets forth the investment policy ("the Policy") for the Dollar Denominated Fixed Income Program ("the Program"), Limited [Duration](#) investment funds. The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.

This will be the controlling document for both the [High Quality LIBOR](#) Fund ("the HQL Fund") and the [Short Duration Fund](#) ("the SDF").

**II. DOLLAR DENOMINATED FIXED INCOME, LIMITED DURATION INVESTMENT FUNDS**

A. The HQL Fund is designed to be a limited duration, highly liquid fund that can be used by CalPERS' Portfolio Managers as a way to invest in a limited duration asset that provides low volatility versus a floating-rate based benchmark.

1. Uses for the HQL Fund include, but are not limited to:
  - a. a stand-alone asset in the fixed income mortgage portfolio as a proxy for high coupon mortgage pass-throughs,
  - b. an asset in the securities lending portfolio that will be managed internally,
  - c. the cash component of mortgage dollar roll transactions,

- d. the cash component of [interest rate swap](#) transactions, and
    - e. the cash component of the Equity Dynamic Completion Fund transactions.
  - 2. The Statement of Investment Policy for Dollar-Denominated Fixed Income, High Quality LIBOR is attached as Attachment I.
- B. The SDF is designed to earn a return premium versus traditional limited duration assets through a modest increase in portfolio duration and by purchasing a broader universe of limited duration [securities](#) than those typically available to traditional money market portfolios. Expanding the allowable universe of limited duration securities provides the opportunity to increase return by taking advantage of some structural aspects inherent in the limited duration sector. Traditionally there are three strategies that provide incremental alpha opportunities for limited duration investors. These strategies include extending duration out the [yield curve](#), accepting lower liquidity, and investing down the credit spectrum. The SDF will be designed to take advantage of all three strategies within a controlled manner and will result in a modest increase in risk relative to the HQL fund.
  - 1. Uses for the SDF include, but are not limited to:
    - a. the “core” asset of the internally managed securities lending portfolio,
    - b. a stand-alone asset in the fixed income mortgage portfolio as a proxy for high coupon mortgage pass-throughs,
    - c. the cash component of mortgage dollar roll transactions and interest rate swap transactions.
  - 2. The key determinant for the use of the SDF is the identification of a pool of funds that require less liquidity than that provided by the HQL fund. It is anticipated that the majority of CalPERS sub-strategies desiring limited-duration assets will use both the HQL fund and SDF at various times depending on liquidity needs.
  - 3. The Statement of Investment Policy for Dollar-Denominated Fixed Income, Short Duration Fund is attached as

Attachment II.

**III. FUND CHARACTERISTICS AND SYSTEM USES**

The HQL Fund and the SDF will both be utilized as limited-duration investment alternatives by various asset classes within the System.

- A. Attachment III outlines the basic differences in the two funds.
- B. Attachment IV details how the limited-duration alternatives are utilized as assets within the System.

Approved by the Policy Subcommittee: June 13, 2003  
Adopted by the Investment Committee: August 18, 2003  
Revised by the Policy Subcommittee: June 11, 2004  
Adopted by the Investment Committee: August 16, 2004  
Revised by the Policy Subcommittee: December 9, 2005  
Adopted by the Investment Committee: February 14, 2006

Attachment I

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM  
STATEMENT OF INVESTMENT POLICY**

**FOR  
DOLLAR-DENOMINATED FIXED INCOME  
HIGH QUALITY LIBOR**

**February 14, 2006**

*This Policy is effective immediately upon adoption and supersedes all previous dollar-denominated fixed income High Quality LIBOR policies.*

**I. PURPOSE**

This document sets forth the investment policy ("the Policy") for Dollar Denominated Fixed Income Program ("the Program"), High Quality LIBOR fund ("the HQL Fund"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.

**II. STRATEGIC OBJECTIVE**

Achieving the highest total rate of return possible, consistent with a prudent level of risk and the liabilities of the System is the strategic objective of the Program. The principal functional objectives for the HQL Fund are liquidity and preservation of capital.

The HQL Fund shall be managed to accomplish the following:

- A. Diversify the System's overall investment Program;
- B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law;
- C. Provide stable limited duration returns;
- D. Enhance the System's total return.

### III. RESPONSIBILITIES AND DELEGATIONS

- A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).
- B. The **System's Investment Staff's** ("the Staff") duties include, but are not limited to, the following:
1. Developing and recommending the Policy to the Investment Committee;
  2. Developing and maintaining a procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;
  3. Implementing and adhering to the Policy;
  4. Auditing the securities trading activities of portfolio managers and traders by the [Senior Investment Officer, Fixed Income](#);
  5. Reporting immediately all violations of the Policy to the [Chief Investment Officer](#); the violation reporting process shall be as follows:
    - a. The Staff shall report orally, or in writing, all violations immediately to the Senior Investment Officer, Fixed Income.
    - b. The Senior Investment Officer, Fixed Income shall immediately report orally, or in writing, any violation verbally to the Chief Investment Officer and the Assistant Executive Officer.
    - c. As a follow-up to the verbal report, the Staff shall prepare a written report of any violation within a time period not exceeding 30 days.
    - d. The Chief Investment Officer shall determine the appropriate means of further reporting based on his or her judgment of the magnitude, sensitivity and severity of the violation.

- e. All violations shall be reported to the Investment Committee as part of a quarterly report agenda item on the Investment Committee's regular agenda. The report shall coincide with the regular quarterly reports of the CalPERS [general pension consultant](#).
  - f. Depending on the violation, and at the discretion of the Chief Investment Officer, reporting may also be made to the Investment Committee. The report may be made as a separate agenda item or as a portion of the Chief Investment Officer's Report at the next scheduled Investment Committee meeting.
- 6. Purchasing only securities outlined in the Policy; and
  - 7. Reporting to the System's Investment Committee at least quarterly about the following issues:
    - a. Portfolio duration;
    - b. Sector weightings;
    - c. Fixed and floating rate breakout;
    - d. Security [rating](#) scales (e.g. AAA%, AA%);
    - e. An exceptions report that covers Policy violations
  - 8. Reporting internally to senior management concerning the implementation of this Policy. This report shall be prepared monthly to include, but is not limited to, the following areas:
    - a. Current market value and allocations by sector;
    - b. Aggregate and individual portfolio characteristics and risks (including duration) compared to guidelines; and
    - c. An exception report covering delinquencies, [defaults](#), and deteriorating credits.
  - 9. Reporting to the Investment Committee on the performance of the Program as needed and monitoring implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of the Policy immediately, and in writing, to the Investment Committee,

along with an explanation and appropriate recommendation for corrective action.

- C. The **General Pension Consultant** is responsible for monitoring, evaluating, and reporting to the Investment Committee, at least quarterly, about the internally and [externally managed](#) fixed income performance relative to the benchmark and Policy guidelines.

#### IV. PERFORMANCE OBJECTIVE

Slightly exceed the return of a Federal Funds based index while maintaining a high level of diversification and liquidity.

#### V. INVESTMENT APPROACHES AND PARAMETERS

##### A. Investment Approach

Identifying opportunities across limited duration bond market sectors and investing where risks are both understood and manageable while maintaining credit quality, duration, [convexity](#), and liquidity as specified in this Policy is the investment approach of the HQL Fund. Given the mandate for the HQL Fund to be a high liquidity, preservation of capital fund, measured versus a Federal Funds based benchmark, it is expected that floating rate AAA-rated [securities](#) will represent a majority of the fund's holdings.

##### B. Specific Risk Parameters

The System shall manage the following major categories of fixed income risk:

1. Benchmark Risk addresses whether the Federal Funds index is the appropriate reference point for the HQL Fund.
2. Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration. Duration shall be maintained at a level that does not exceed 90 days due to the stable return mandate of the HQL Fund. Decisions shall be managed in a controlled manner using historical [real return relationships](#) and [economic analysis](#).

### Maturity and Duration Constraints

Asset	Maturity Limits
US Treasury & Govt. Sponsored	91 days
<u>Repurchase Agreements</u>	
US Treasury/ <u>Agency</u> Collateral	3 months
Non US Treasury/Agency Collateral	1 month
AAA Rated Fixed Rate <u>Structured Securities</u>	90 day WAL
AAA Rated Floating Rate Structured Securities	5 year WAL
<u>Money Market Securities</u>	
> = A1/P1	90 days
< A1/P1	35 days
<u>Corporate &amp; Yankee Sovereign</u> (AAA rated)	90 days
Corporate (less than AAA rated)	35 days
Yankee Sovereign (less than AAA rated)	35 days

3. Yield Curve Risk is the price changes induced by the changing slope of the yield curve. Yield curve risk shall be managed in a controlled, disciplined fashion by employing break-even, economic analysis, partial duration, and principal component analysis.
4. Convexity Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain. Convexity shall be managed using option-adjusted and scenario analyses.
5. Sector and Asset Risk is the risk of holding sectors and assets proportionally different from the Index. Based on the economic outlook, historical factors, and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.



### Asset and Sector Diversification

Asset / Counterparty	Diversification Limits
US Treasury & Govt. Sponsored	No Restriction
2a-7 <a href="#">Money Market Funds</a>	No Restriction
<a href="#">State Street Bank's STIF</a>	No Restriction
Repurchase Agreements	25%
AAA Rated Structured Securities	10%
Corporate & Yankee Sovereign (AAA rated)	10%
Corporate (less than AAA rated)	5%
Yankee Sovereign (less than AAA rated)	5%
<b>Money Market Securities</b>	
> = A1/P1 (next business day maturity)	15%
> = A1/P1	10%
< A1/P1 (next business day maturity)	10%
< A1/P1	5%

Sector	Diversification Limits
Floating Rate	No Restriction
Fixed Rate (greater than 35 day maturity)	20%
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	No Restriction
AAA Rated Fixed Rate Structured Securities	20%
AAA Rated Floating Rate Structured Securities	No Restriction
Credit Card Collateral	75%
Auto Collateral	75%
Student Loan Collateral	75%
Any Other Individual Structured Collateral Sector	50%
Any One <a href="#">Corporate Sector</a>	15%
Total Yankee Sovereign Sector	15%
Total Corporate/Yankee Sovereign	50%
Money Market Securities	
> = A1/P1	No Restriction
< A1/P1 (next business day maturity)	50%
< A1/P1	25%

6. Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations. Credit risk shall be actively managed on a risk/return basis. A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the Senior Investment Officer, Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to the System. The internal research Staff and the external rating agencies shall analyze

such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

<b>Asset / Counterparty</b>	<b>Minimum Credit Rating</b>
<b>US Treasury &amp; Govt. Sponsored</b>	AAA
<b>Repurchase Agreements</b>	A1/P1
<b>Structured Securities</b>	AAA
<b>Money Market Securities</b>	A2/P2
<b>Corporate Securities</b>	Baa1/BBB+
<b>Yankee Sovereign Securities</b>	A3/A-

7. Structure Risk arises from the options implicit in [bonds](#) (e.g., callable and optional sinking fund bonds) or the rules governing cash flow that differs from expectations. Structure risk shall be managed using option adjusted and scenario analysis.
8. Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments. Reinvestment risk shall be managed through [call risk](#) and cash flow analysis.
9. Liquidity risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices. Considering the HQL Fund's mandate as a liquid, limited duration fund, high liquidity is a major requirement.
10. Currency Risk is the price volatility emanating from the value of the U.S. dollar relative to other currencies of the world. To reduce this risk, all securities shall be denominated in U.S. dollars.

### C. Restrictions and Prohibitions

1. Except for U.S. Treasuries and Agencies, investments in a AAA-rated single [issuer](#) with a maturity that exceeds one business day shall not exceed 10% of the HQL Fund during the holding period for such investment. Exceptions to this

restriction are 2a-7 money market funds, State Street Bank's STIF, and repurchase agreements (See Section V. B. 5.) For structured securities, each separate trust (pool of assets) is defined as a separate issuer.

2. Investments in any non-AAA rated single issuer with a maturity that exceeds one business day shall not exceed 5% of the HQL Fund during the holding period for such investment.
3. The Option adjusted duration of the HQL Fund shall not exceed 90 days.
4. Non-investment grade securities are prohibited.
5. [Collateralized Bond Obligation](#) (CBO) and [Collateralized Loan Obligation](#) (CLO) investments are prohibited.
6. Tobacco company investments are prohibited.
7. Privately Placed [Investment Grade](#) Corporate Bonds are prohibited
8. [Collateralized Mortgage Obligations](#) (CMO) are prohibited
9. Adjustable rate securities, which are not allowed include, but are not limited to, the following:
  - a. "[Inverse floaters](#)," "leveraged floaters" and any securities whose interest rate reset provisions are based on a formula that magnifies changes in interest rates.
  - b. "Constant Maturity Treasury (CMT) floaters" and securities whose interest rate reset provisions are tied to long-term interest rates so that a change in the slope of the yield curve could result in the value of the instrument falling below par.
  - c. "Dual index floaters" and securities whose interest reset provisions are tied to more than one index so that a change in the relationship between these indexes may result in the value of the instrument falling below par.
  - d. "Cost of Funds Index (COFI) floaters," "prime floaters," and securities whose interest rate reset provision is tied to an index materially lagging short-term interest rates.

**D. Authorized Securities**

1. U.S. Treasury and [Government Sponsored Securities](#) (including derivative securities whose deliverable instrument is a U.S. Treasury or government obligation) excluding mortgages and [mortgage-backed securities \(MBS\)](#)
2. Money market instruments, including obligations of the U.S. Government and its agencies, and domestic money market instruments ([commercial paper](#), bank time deposits, [certificates of deposit](#), and [banker's acceptances](#)). Non-domestically domiciled money market issuers must be domiciled in countries defined in the Glossary under Yankee Sovereign.
3. Repurchase Agreements and [Tri-Party Repurchase Agreements](#) (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements must be [marked-to-market](#) daily. Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1. Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of \$1 million in size.
4. [Notes](#), bonds, and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, [supranational](#), and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this policy.
5. Money market funds as defined under SEC Regulation 270.2a-7.
6. Structured securities with a minimum [credit rating](#) of AAA. Subject to the maturity constraints specified in this policy.
7. [Floating rate](#) and [variable rate securities](#), subject to maturity, credit quality, and reset limitations specified in this policy. The HQL Fund can invest in adjustable rate securities tied to

LIBOR, [Fed Funds](#), Treasury Bills, and Commercial Paper Indices.

## VI. BENCHMARK

The benchmark for the HQL Fund shall be a Federal Funds based index.

## VII. GENERAL

- A. Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's [Custodian](#).
- B. For securities with periodic principal payments, the [weighted-average days to maturity](#) shall be calculated from the [evaluation date](#) to the date of the security's [average life](#).
- C. The portfolio weighted-average days to maturity shall be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.

## VIII. DERIVATIVES AND LEVERAGE POLICY

All transactions involving [derivatives](#) and [leverage](#) are governed by the California Public Employees' Retirement System Statement of Investment Policy for Derivatives - Investment Office. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the HQL Fund.

- A. [Financial Futures](#), [Swaps](#), and [Options](#)
  - 1. [Short selling](#) of securities is prohibited, except in financial futures (as outlined in Section VIII. A. 4. of this Policy);
  - 2. Leverage is prohibited except [futures](#) position where there is an associated cash position (which together creates a synthetic bond);
  - 3. The Staff may buy or sell the following fixed income related derivatives: financial futures including [Eurodollar futures](#), [Total Return Swaps](#), [Index Swaps](#), [Credit Default Swaps](#), Interest Rate Swaps, and [over-the-counter](#) options as specified in Section V. D. 1. of this Policy; and
  - 4. Acceptable strategies include bona fide [hedges](#) (to help achieve the target durations) and strategies that result in a

more efficient method of implementing the investment objectives of the Portfolio.

**B. Restrictions and Prohibitions**

1. Uncovered call writing is prohibited.
2. [Speculation](#) or [arbitrage](#) between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

**C. Counterparty Exposure for Options, Swaps and Futures**

1. Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 ([Standard & Poor's](#)) and at least P1 ([Moody's](#)), or rated on a long-term at least A3 (Moody's) and at least A- (Standard & Poor's). The Internal Research Staff shall actively review these brokers.

**IX. GLOSSARY OF TERMS**

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.

Attachment II

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM  
STATEMENT OF INVESTMENT POLICY**

**FOR  
DOLLAR-DENOMINATED FIXED INCOME  
SHORT DURATION FUND**

**February 14, 2006**

*This Policy is effective immediately upon adoption and supersedes all previous dollar-denominated fixed income Short Duration fund policies.*

**I. PURPOSE**

This document sets forth the investment policy ("the Policy") for Dollar Denominated Fixed Income Program ("the Program"), Short Duration Fund ("the SDF"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of the market.

**II. STRATEGIC OBJECTIVE**

Achieving the highest total rate of return possible, consistent with a prudent level of risk and the liabilities of the System is the strategic objective of the Program. The principal functional objective of the SDF is to provide total rates of return in excess of the benchmark while maintaining prudent levels of liquidity.

The SDF shall be managed to accomplish the following:

- A. Diversify the System's overall investment Program;
- B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law;
- C. Provide stable limited duration returns.
- D. Enhance the System's total return.



### **III. RESPONSIBILITIES AND DELEGATIONS**

- A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program to the Investment Staff through the Delegation of Authority (Delegation Nos. 89-13 and 95-50).
- B. The **System's Investment Staff's** ("the Staff") duties include, but are not limited to, the following:
  - 1. Developing and recommending the Policy to the Investment Committee;
  - 2. Developing and maintaining a procedures manual, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;
  - 3. Implementing and adhering to the Policy;
  - 4. Auditing the securities trading activities of portfolio managers and traders by the Senior Investment Officer, Fixed Income;
  - 5. Reporting immediately all violations of the Policy to the Chief Investment Officer; the violation reporting process shall be as follows:
    - a. The Staff shall report orally, or in writing, all violations immediately to the Senior Investment Officer, Fixed Income.
    - b. The Senior Investment Officer, Fixed Income shall immediately report orally, or in writing, any violation verbally to the Chief Investment Officer and the Assistant Executive Officer.
    - c. As a follow-up to the verbal report, the Staff shall prepare a written report of any violation within a time period not exceeding 30 days.
    - d. The Chief Investment Officer shall determine the appropriate means of further reporting based on his or her judgment of the magnitude, sensitivity and severity of the violation.

- e. All violations shall be reported to the Investment Committee as part of a quarterly report agenda item on the Investment Committee's regular agenda. The report shall coincide with the regular quarterly reports of the CalPERS general pension consultant.
  - f. Depending on the violation, and at the discretion of the Chief Investment Officer, reporting may also be made to the Investment Committee. The report may be made as a separate agenda item or as a portion of the Chief Investment Officer's Report at the next scheduled Investment Committee meeting.
- 6. Purchasing only securities outlined in the Policy; and
  - 7. Reporting to the System's Investment Committee at least quarterly about the following issues:
    - a. Portfolio duration;
    - b. Sector weightings;
    - c. Fixed and floating rate breakout;
    - d. Security rating scales (e.g. AAA%, AA%);
    - e. An exceptions report that covers Policy violations
  - 8. Reporting internally to senior management concerning the implementation of this Policy. This report shall be prepared monthly to include, but is not limited to, the following areas:
    - a. Current market value and allocations by sector;
    - b. Aggregate and individual portfolio characteristics and risks (including duration) compared to guidelines; and
    - c. An exception report covering delinquencies, defaults, and deteriorating credits.
  - 9. Reporting to the Investment Committee on the performance of the Program as needed and monitoring implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of the Policy immediately, and in writing, to the Investment Committee,

along with an explanation and appropriate recommendation for corrective action.

- C. The **General Pension Consultant** is responsible for monitoring, evaluating, and reporting to the Investment Committee, at least quarterly, about the internally and externally managed fixed income performance relative to the benchmark and Policy guidelines.

#### **IV. PERFORMANCE OBJECTIVE**

Moderately exceed the return of a Federal Funds based index while maintaining a high level of diversification and prudent liquidity.

#### **V. INVESTMENT APPROACHES AND PARAMETERS**

##### **A. Investment Approach**

Identifying opportunities across limited duration bond market sectors and investing where risks are both understood and manageable while maintaining credit quality, duration, convexity, and liquidity as specified in this Policy is the investment approach of SDF. Given the mandate for the SDF to be a medium liquidity, total rate of return fund, measured versus a Federal Funds based benchmark, it is expected that floating rate securities will represent a majority of the fund's holdings.

##### **B. Specific Risk Parameters**

The System shall manage the following major categories of fixed income risk:

1. Benchmark Risk addresses whether a Federal Funds based index is the appropriate reference point for the SDF.
2. Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration. Duration shall be maintained at a level that does not exceed 180 days. Decisions shall be managed in a controlled manner using historical real return relationships and economic analysis.

## Maturity and Duration Constraints

Asset	Floating Rate Maturity Limits	Fixed Rate Maturity Limits
<b>US Treasury &amp; Govt. Sponsored</b>		2 years
<b>Repurchase Agreements</b>		
US Treasury/Agency Collateral	3 months	
Non US Treasury/Agency Collateral	1 month	
<b>AAA Rated Structured Securities</b>	7 year WAL	2 year WAL
<b>Non-AAA Rated Structured Securities</b>	5 year WAL	18 month WAL
<b>Note: Mortgage-backed securities maximum WAL calculation to be run at 100 <a href="#">PSA</a></b>		
<b>Money Market Securities</b>		
> = A1/P1		270 days
< A1/P1		90 days
<b>Corporate &amp; Yankee Sovereign (AAA rated)</b>	5 Years	2 years
<b>Corporate &amp; Yankee Sovereign (less than AAA rated)</b>	4 Years	18 months

3. Yield Curve Risk is the price changes induced by the changing slope of the yield curve. Yield curve risk shall be managed in a controlled, disciplined fashion by employing break-even, economic analysis, partial duration, and principal component analysis.
4. Convexity Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain. Convexity shall be managed using option-adjusted and scenario analyses.
5. Sector and Asset Risk is the risk of holding sectors and assets proportionally different from the Index. Based on the economic outlook, historical factors, and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.

**Asset and Sector Diversification**

<b>Asset / Counterparty</b>	<b>Diversification Limits</b>
<b>US Treasury &amp; Govt. Sponsored</b>	No Restriction
<b>2a-7 Money Market Funds</b>	No Restriction
<b>State Street Bank's STIF</b>	No Restriction
<b>Repurchase Agreements</b>	25%
<b>AAA Rated Structured Securities</b>	
Less than or = 1.5 year WAL	15%
Greater than 1.5 year WAL	10%
<b>Non-AAA Rated Structured Securities</b>	5%
<b>Corporate &amp; Yankee Sovereign (AAA rated)</b>	10%
<b>Corporate &amp; Yankee Sovereign (less than AAA rated)</b>	5%
<b>Money Market Securities</b>	
> = A1/P1 (next business day maturity)	15%
> = A1/P1	10%
< A1/P1 (next business day maturity)	10%
< A1/P1	5%

Sector	Sector Limits
Floating Rate	No Restriction
Fixed Rate (greater than 35 day WAL)	35%
Non-AAA Rated Securities	50%
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	No Restriction
AAA Rated Structured Securities	No Restriction
Credit Card Collateral	75%
Auto Collateral	75%
Student Loan Collateral	75%
Home Equity Loan Collateral	75%
Any Other Individual Structured Collateral Sector	50%
Non-AAA Rated Structured Securities	
Each Sector (e.g., credit card, auto)	20%
Any One Corporate Sector	15%
Total Yankee Sovereign Sector	15%
Total Corporate/Yankee Sovereign	50%
Money Market Securities	
> = A1/P1	No Restriction
< A1/P1 (next business day maturity)	50%
< A1/P1	25%

6. Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations. Credit risk shall be actively managed on a risk/return basis. A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the Senior Investment Officer, Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to the System. The internal

research Staff and the external rating agencies shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

<b>Asset / Counterparty</b>	<b>Minimum Credit Rating</b>
<b>US Treasury &amp; Govt. Sponsored</b>	AAA
<b>Repurchase Agreements</b>	A1/P1
<b>Structured Securities</b>	Baa2 or BBB
<b>Money Market Securities</b>	A2/P2
<b>Corporate Securities</b>	Baa1/BBB+
<b>Yankee Sovereign Securities</b>	A3/A-

7. Structure Risk arises from the options implicit in bonds (e.g., callable and optional sinking fund bonds) or the rules governing cash flow that differs from expectations. Structure risk shall be managed using option adjusted and scenario analysis.
8. Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments. Reinvestment risk shall be managed through call risk and cash flow analysis.
9. Liquidity risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices. Considering the SDF's mandate as a limited duration fund that will provide prudent liquidity, liquidity is a relevant requirement for the SDF.
10. Currency Risk is the price volatility emanating from the value of the U.S. dollar relative to other currencies of the world. To reduce this risk, all securities shall be denominated in U.S. dollars.



**C. Restrictions and Prohibitions**

1. Except for U.S. Treasuries and Agencies, investments in a AAA-rated single issuer with a maturity that exceeds one business day shall not exceed 10% of the SDF during the holding period for such investment. Exceptions to this restriction are 2a-7 money market funds, State Street Bank's STIF, repurchase agreements and structured securities that have average lives less than or equal to 1.5 years (See section V. B. 5.) For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
2. Investments in any non-AAA rated single issuer with a maturity that exceeds one business day shall not exceed 5% of the SDF during the holding period for such investment. For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
3. The Option adjusted duration of the SDF must not exceed 180 days.
4. Non-investment grade securities are prohibited.
5. Tobacco company investments are prohibited.
6. Privately Placed Investment Grade Corporate Bonds are prohibited
7. Adjustable rate securities, which are not allowed include, but are not limited to, the following:
  - a. "Inverse floaters," "leveraged floaters" and any securities whose interest rate reset provisions are based on a formula that magnifies changes in interest rates.
  - b. "Constant Maturity Treasury (CMT) floaters" and securities whose interest rate reset provisions are tied to long-term interest rates so that a change in the slope of the yield curve could result in the value of the instrument falling below par.
  - c. "Dual index floaters" and securities whose interest reset provisions are tied to more than one index so that a change in the relationship between these indexes may result in the value of the instrument falling below par.

- d. “Cost of Funds Index (COFI) floaters,” and securities whose interest rate reset provision is tied to an index materially lagging short-term interest rates.

**D. Authorized Securities**

1. U.S. Treasury and Government Sponsored Securities (including derivative securities whose deliverable instrument is a U.S. Treasury or government obligation) excluding mortgages and mortgage-backed securities (MBS).
2. Money market instruments, including obligations of the U.S. Government and its agencies, and domestic money market instruments (commercial paper, bank time deposits, certificates of deposit, and banker’s acceptances). Non-domestically domiciled money market issuers must be domiciled in countries defined in the Glossary under Yankee Sovereign.
3. Repurchase Agreements and Tri-Party Repurchase Agreements (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements must be marked-to-market daily. Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1. Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of \$1 million in size.
4. Notes, bonds, and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, supranational, and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this policy.
5. Money market funds as defined under SEC Regulation 270.2a-7.
6. Structured securities with a minimum credit rating of Baa2/BBB. Subject to the maturity constraints detailed in this policy.

7. Floating rate and variable rate securities, subject to maturity, credit quality, and reset limitations specified in this policy. The SDF can invest in adjustable rate securities tied to LIBOR, Fed Funds, Treasury Bills, and Commercial Paper Indices.
8. [Participation shares in CalPERS construction loan program](#) with BRIDGE Housing Corporation.
9. CalPERS Asset-Based Loan (ABL) program investments.

## **VI. BENCHMARK**

The benchmark for the SDF shall be a Federal Funds based index.

## **VII. GENERAL**

- A. Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.
- B. For securities with periodic principal payments, the weighted-average days to maturity shall be calculated from the evaluation date to the date of the security's average life.
- C. The portfolio weighted-average days to maturity shall be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.

## **VIII. DERIVATIVES AND LEVERAGE POLICY**

All transactions involving derivatives and leverage are governed by the California Public Employees' Retirement System Statement of Investment Policy for Derivatives - Investment Office. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the SDF.

### **A. Financial Futures, Swaps, and Options**

1. Short selling of securities is prohibited, except in financial futures (as outlined in Section VIII. A. 4. of this Policy);
2. Leverage is prohibited except futures position where there is an associated cash position (which together creates a synthetic bond);

3. The Staff may buy or sell the following fixed income related derivatives: financial futures including Eurodollar futures, Total Return Swaps, Index Swaps, Credit Default Swaps, Interest Rate Swaps, and over-the-counter options as specified in Section V. D. 1. of this Policy; and
4. Acceptable strategies include bona fide hedges (to help achieve the target durations) and strategies that result in a more efficient method of implementing the investment objectives of the Portfolio.

**B. Restrictions and Prohibitions**

1. Uncovered call writing is prohibited.
2. Speculation or arbitrage between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

**C. Counterparty Exposure for Options, Swaps and Futures**

1. Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (Standard & Poor's) and at least P1 (Moody's), or rated on a long-term basis at least A3 (Moody's) and at least A- (Standard & Poor's). The Internal Research Staff shall actively review these brokers.

**IX. GLOSSARY OF TERMS**

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.

## Attachment III

**Limited Duration Investment Fund Characteristics**

Although both funds are designed to be limited-duration in nature, the two investment funds differ in their targeted investment horizon, portfolio objectives, and expected fund participants. While the HQL fund is an appropriate investment for numerous CalPERS sub-strategies, the SDF is designed to be a slightly more aggressively managed limited duration fund for participants having a longer investment horizon that allows for higher monthly return volatility in exchange for higher expected long-term alpha. For instance, the SDF is viewed as an appropriate investment for the “core” portion of the securities lending assets.

Given the different investment time horizons, fund objectives, and expected fund participants, the investment policies that govern the two funds do have some major policy differences and multiple minor differences.

The following table summarizes the basic fund characteristics.

	High Quality LIBOR	Short Duration Fund
<b>Investment Horizon</b>	Less than 30 days	6 - 12 months
<b>Objective</b>	Medium / High Liquidity Capital Preservation Total Rate of Return	Medium Liquidity Total Rate of Return
<b>Participants</b>	Global Fixed Income Domestic Equity Securities Lending	Securities Lending
<b>Liquidity Requirement</b>	High	Medium
<b>Portfolio Duration Constraint</b>	90 Days Max	180 Days Max
<b>WAL Constraint</b>		
Fixed Rate Securities	90 Days	2 years
AAA-Rated Floating Rate Securities	5 Years	7 Years
<b>Minimum Credit Quality</b>		
Structured Securities	AAA	BBB

## ATTACHMENT IV

## SHORT DURATION FUNDS COMPARISON

